

IN THE CLAIMS:

1. (Currently Amended) A diathermic snare comprising: ~~used in combination with an endoscope, the endoscope including an inserting section which is inserted into a body cavity and which has a distal end and a proximal end, and a cylindrical cap section mounted on the distal end of the inserting section, the cap section having a distal end, a proximal end and an engagement projection having a bending portion that bends inward at the distal end of the cap section;~~

~~wherein the diathermic snare comprises:~~

~~a loop section which is connected to an operation wire having a distal end and a proximal end, which is insertable into an elongated flexible sheath having a distal end and a proximal end, and which is allowed to be looped, the loop section being looped while being projected from the distal end of the sheath when the operation wire is pushed forward toward the distal end of the sheath and being inserted into the sheath when the operation wire is pulled toward the proximal end of the sheath; and~~

~~an operating wire inserted into the sheath so as to move forward and backward and having a distal end and a proximal end;~~

~~a snare wire coupled to the distal end of the operating wire and having a loop section which expands like a loop;~~

~~an operating section coupled to the proximal end of the sheath and including a guide member extending in an axial direction of the sheath and a slider which moves forward and backward in the axial direction of the sheath along the guide member and which is coupled to the proximal end of the operating wire; the loop section of the snare wire projecting from the distal end of the sheath, the snare wire expanding like a loop, and the loop~~

~~section expanding along an inner circumference of the engagement projection when the slider moves toward along the guide member; and the loop section being stored in the sheath when the slider moves backward along the guide member; and~~

a distal-end bending portion provided at the distal end of the loop section, the bending portion ~~ending~~ being bendable in a direction that intersects a plane formed by the loop section ~~and conforming to a corner of the bending portion of the engagement projection when the loop section expands along the inner circumference of the projection.~~

2. (Currently Amended) A medical instrument system using a diathermic snare and an endoscope in combination with each other, the endoscope including an inserting section ~~which is inserted into a body cavity and which has~~ having a distal end and a proximal end, and a cylindrical cap section mounted on the distal end of the inserting section, the cap section having a distal end ~~[[,]]~~ and a proximal end ~~and an engagement projection having a bending portion that bends inward at the distal end of the cap section,~~

wherein the cap section includes an engagement projection which is bendable inward at the distal end of the cap section; and

wherein the medical instrument system comprises the diathermic snare comprises:

a loop section which is connected to a distal end of an operating wire, which is insertable into an elongated flexible sheath having a distal end and a proximal end, and which is allowed to be looped, the loop section being looped while being projected from the distal end of the sheath when the operation wire is pushed forward toward the distal end of the sheath and being inserted into the sheath when the operation wire is pulled toward the proximal end of the sheath; and

~~an operating wire inserted into the sheath so as to move forward and backward and having a distal end and a proximal end;~~

~~a snare wire coupled to the distal end of the operating wire and having a loop section which expands like a loop;~~

~~an operating section coupled to the proximal end of the sheath and including a guide member extending in an axial direction of the sheath and a slider which moves forward and backward in the axial direction of the sheath along the guide member and which is coupled to the proximal end of the operating wire; the loop section of the snare wire projecting from the distal end of the sheath, the snare wire expanding like a loop, and the loop section expanding along an inner circumference of the engagement projection when the slider moves toward along the guide member; and the loop section being stored in the sheath when the slider moves backward along the guide member; and~~

~~a distal-end bending portion provided at the distal end of the loop section, the bending portion bending being bendable in a direction that intersects a plane formed by the loop section, and conforming to a corner of [[the]] a bending portion of the engagement projection when the loop section expands along the inner circumference of the projection.~~

3. (Original) The medical instrument system according to claim 2, wherein the cap section has a main body that is made of transparent materials.

4. (Original) The medical instrument system according to claim 2, wherein the engagement projection has a flange-shaped engagement projection that projects toward an inner surface of the cap section in proximity to a leading edge of the cap section.

5. (Original) The medical instrument system according to claim 2, wherein:
the cap section has a fixing section at the proximal end thereof, the fixing
section being fixed to a distal end of the endoscope; and

the medical instrument system further comprises a soft tube having an open
distal end and an open proximal end, the soft tube being arranged alongside the inserting
section of the endoscope when the fixing section is fixed to the distal end of the endoscope,
and the open distal end communicating with an inside of the cap section.

6. (Original) The medical instrument system according to claim 2, wherein the
bending portion of the loop section bends at a bend angle which is almost perpendicular to the
plane formed by the loop section.

7. (Original) The medical instrument system according to claim 2, wherein the
bending portion of the loop section bends at an acute bend angle corresponding to an acute
angle to the plane formed by the loop section.

8. (Original) The medical instrument system according to claim 2, wherein:
the cap section has an inclined plane corresponding to a plane of the distal end
of the cap section which is inclined to the axial direction of the sheath; and
the bending portion of the loop section bends in the axial direction of the
sheath.

9. (Original) The medical instrument system according to claim 8, wherein the
plane formed by the loop section has an inclination angle that is set such that the plane is
almost parallel to the inclined plane of the cap section.

10. (Original) The medical instrument system according to claim 8, wherein:
the inclined plane of the cap section inclines at an acute angle in the axial
direction of the sheath; and

the bending portion of the loop section bends at a bend angle that is equal to an
inclination angle of the inclined plane.

11. (Original) The medical instrument system according to claim 2, wherein
the loop section has a diameter that is equal to an inside diameter of the cap section.

12. (Original) The medical instrument system according to claim 2, wherein
the loop section rotates around an axis of the sheath.

13. (Currently Amended) A method of assembling a medical instrument
system using a diathermic snare and an endoscope in combination with each other, the method
comprising:

~~the endoscope including an elongated inserting section which is inserted into a
body cavity and which has a distal end and a proximal end, and a cylindrical cap section
mounted on the distal end of the inserting section;~~

~~the cap section having a distal end, a proximal end, an engagement projection
having a bending portion that bends inward at the distal end of the cap section, a fixing
section provided at the proximal end of the cap section and fixed to a distal end of the
endoscope, and a soft tube having an open distal end and an open proximal end, the soft tube
being arranged alongside the inserting section of the endoscope when the fixing section is
fixed to the distal end of the endoscope, and the open distal end communicating with an inside
of the cap section;~~

~~the diathermic snare including an elongated flexible sheath having a distal end and a proximal end, an operating wire inserted into the sheath so as to move forward and backward and having a distal end and a proximal end, a snare wire coupled to the distal end of the operating wire and having a loop section which expands like a loop, an operating section coupled to the proximal end of the sheath and including a guide member extending in an axial direction of the sheath and a slider which moves forward and backward in the axial direction of the sheath along the guide member and which is coupled to the proximal end of the operating wire, the loop section of the snare wire projecting from the distal end of the sheath, the snare wire expanding like a loop, and the loop section expanding along an inner circumference of the engagement projection when the slider moves toward along the guide member, and the loop section being stored in the sheath when the slider moves backward along the guide member, and a bending portion provided at the distal end of the loop section, the bending portion bending in a direction that intersects a plane formed by the loop section and conforming to a corner of the bending portion of the engagement projection when the loop section expands along the inner circumference of the projection, and~~

~~the plane formed by the loop section inclining in the axial direction of the sheath and the loop section rotating around an axis of the sheath,~~

~~comprising:~~

~~a diathermic snare inserting step of mounting [[the]] a cylindrical cap section on a distal end of an inserting section of the endoscope, then inserting the diathermic snare into the tube, and projecting [[the]] a distal end of [[the]] a sheath of the diathermic snare forward from the cap section;~~

a loop section projecting step of projecting the loop section from the sheath while the distal end of the sheath is projected from the cap section;

a loop section direction adjusting step of rotating the loop section around an axis of the sheath when necessary and adjusting a direction of the loop section;

a retracting step of retracting the loop section into the cap section;

a cap section pressing step of pressing a leading edge of the cap section against an object; and

a loop section setting step of pushing the sheath to bring the loop section into intimate tight contact with the engagement projection and expanding the loop section circularly along the engagement projection.

14. (New) The diathermic snare according to claim 1, wherein the distal-end bending portion is bendable at a substantially right angle with respect to the plane formed by the loop section.

15. (New) The diathermic snare according to claim 1, wherein the distal-end bending portion is bendable at an acute angle with respect to the plane formed by the loop section.

16. (New) A diathermic snare used in combination with an endoscope, the endoscope including an inserting section which is inserted into a body cavity and which has a distal end and a proximal end, and a cylindrical cap section mounted on the distal end of the inserting section, the cap section having a distal end, a proximal end and an engagement projection having a bending portion that bends inward at the distal end of the cap section,

wherein the diathermic snare comprises:

an elongated flexible sheath having a distal end and a proximal end;

an operating wire inserted into the sheath so as to move forward and backward and having a distal end and a proximal end;

a snare wire coupled to the distal end of the operating wire and having a loop section which expands like a loop;

an operating section coupled to the proximal end of the sheath and including a guide member extending in an axial direction of the sheath and a slider which moves forward and backward in the axial direction of the sheath along the guide member and which is coupled to the proximal end of the operating wire; the loop section of the snare wire projecting from the distal end of the sheath, the snare wire expanding like a loop, and the loop section expanding along an inner circumference of the engagement projection when the slider moves toward along the guide member; and the loop section being stored in the sheath when the slider moves backward along the guide member; and

a bending portion provided at the distal end of the loop section, the bending portion ending in a direction that intersects a plane formed by the loop section and conforming to a corner of the bending portion of the engagement projection when the loop section expands along the inner circumference of the projection;

wherein the cap section has an inclined plane corresponding to a plane of the distal end of the cap section which is inclined to the axial direction of the sheath and the bending portion of the loop section bends in the axial direction of the sheath.

17. (New) The medical instrument system according to claim 16, wherein the plane formed by the loop section has an inclination angle that is set such that the plane is almost parallel to the inclined plane of the cap section.

18. (New) The medical instrument system according to claim 16, wherein:
the inclined plane of the cap section inclines at an acute angle in the axial
direction of the sheath; and
the bending portion of the loop section bends at a bend angle that is equal to an
inclination angle of the inclined plane.